

- IV. Claims 19 and 22, drawn to a method of using the nucleic acid to isolate DNA coding for an amylosucrase;
- V. Claims 20, 21, 33-38, 40 and 41, drawn to a method of producing linear glucans or fructose;
- VI. Claim 23, drawn to a method of identifying a DNA encoding an amylosucrase; and
- VII. Claims 39 and 46, drawn to linear glucans.

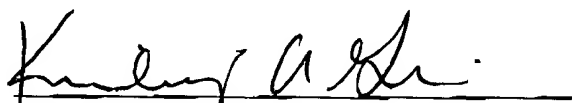
The Examiner alleges that former Groups I-III, V and VI (Groups I-III, VI and VII as corrected) are distinct because they are unrelated. The Examiner states that they are unrelated because they are drawn to divergent molecules having different functions and effects. Specifically, the Examiner states that the polynucleotides can be used in hybridization assays as well as in expression methods for producing polypeptides. The Examiner further states that the glucans can be isolated from native sources without isolation of either polynucleotides or polypeptides. Finally, the Examiner states that the method of identifying a DNA encoding an amylosucrase can be predicted without the use of any of the claimed molecules.

The Examiner alleges that former Groups I and III (i.e., Group VI as corrected) are distinct because the product as claimed can be used in a materially different process of using that product. Specifically, the Examiner states that the polynucleotide of Group I can be used for direct hybridization and isolation of target DNA or for transformation of a bacterial host cell for heterologous expression of the polypeptide.

The Examiner further alleges that Groups II (corrected Group III) and V are distinct because the amylosucrase polypeptide of Group II can be used in a materially different process, such as in the production of an antibody for isolation of the enzyme from native sources.

To expedite prosecution, applicants provisionally elect the claims of corrected Group V without traverse. This election is made expressly without waiver of applicants' rights to continue to prosecute and to obtain claims to the non-elected subject matter either in this application or in another application benefit herefrom. Applicants' decision not to traverse the restriction of corrected Groups I-IV and VI-VII should not be construed as agreement with their restriction or the Examiner's characterization of the groups.

Respectfully submitted,



James F. Haley, Jr. (Reg. No. 27,794)

Elinor K. Shin (Reg. No. 43,117)

Attorneys for Applicants

Kimberley A. Gavin (Reg. No. P-51,723)

Agent for Applicants

c/o FISH & NEAVE

1251 Avenue of the Americas

New York, New York 10020-1104

Tel.: (212) 596-9000

Fax.: (212) 596-9090

APPENDIX

20. (Amended) [Use of proteins according to claim 8 for the production of] A method of producing linear α -1,4 glucans comprising using a protein having the enzymatic activity of an amylosucrase that is coded for by a DNA sequence obtainable by a process comprising the following steps:

- (a) preparing a genomic or a cDNA library;
- (b) transforming a suitable host cell with the library constructed according to (a);
- (c) subjecting the transformed cells to iodine vapor in the presence of sucrose;
- (d) identifying the cells that are stained blue;
- (e) isolating and cultivating the cells identified in step (d);
- (f) isolating the genomic DNA insert or the cDNA insert from the transformed cell; and
- (g) verifying that the protein encoded by the isolated genomic or cDNA molecule has amylosucrase activity.

21. (Amended) [Use of proteins according to claim 8 for the production of] A method of producing fructose comprising using a protein having the enzymatic activity of an amylosucrase that is coded for by a DNA sequence obtainable by a process comprising the following steps:

- (a) preparing a genomic or a cDNA library;
- (b) transforming a suitable host cell with the library constructed according to (a);

- (c) subjecting the transformed cells to iodine vapor in the presence of sucrose;
- (d) identifying the cells that are stained blue;
- (e) isolating and cultivating the cells identified in step (d);
- (f) isolating the genomic DNA insert or the cDNA insert from the transformed cell; and
- (g) verifying that the protein encoded by the isolated genomic or cDNA molecule has amylosucrase activity.